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EXAMINER	
NGUYEN, KEVIN M	
ART UNIT	PAPER NUMBER
2629	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/21/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/786,041	KONG, YUAN	
	Examiner	Art Unit	
	Kevin M. Nguyen	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 February 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-36* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-36* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *26 February 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *2/26/04, 10/24/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-10, 12-15, 17-22, 27-29, 31 and 32 are rejected under 35 U.S.C. **102**(b) as being anticipated by Wang (US 5,771,038).

3. As to **claim 1**, Wang teaches a pointing device configured to communicate with navigation software running on a computer having a display, the pointing device comprising:

a sensor configured to sense a physical input, the pointing device configured to request the navigation software to move a navigation control on the display in accordance with the physical input *(a trackball sensor 211 of the computer mouse 21 moves by a physical arm, and navigates/manipulates a movement of a cursor in a graphic interface provided in software application running being displayed on the screen monitor, fig. 2, col. 4, lines 47-67)*; and

a selector having a first state and a second state, the pointing device configured to request the navigation software to move the navigation control in accordance with a first navigation mode or a second navigation mode depending upon the state of the selector *(a user pushes the control stick 81 for determining the movement of the cursor*

on the monitor of a computer 15 whether a first display state or a second display state is selected, col. 6,lines 18-51).

As to claim 2, Wang teaches a kit, comprising: the pointing device of claim 1; and a computer-readable medium storing computer-executable instructions representing the navigation software (a computer software a firmware has a code storing in EEROM and executed by the computer 15, col. 5, lines 13-15).

AS to claim 3, Wang teaches the kit of claim 2, wherein the navigation software includes a first navigation engine and a second navigation engine, the first navigation mode utilizing the first navigation engine and the second navigation mode utilizing the second navigation engine *(a first potential meter 72 is controlled by a A/D converter 74, a second potential meter 72 is controlled by a second A/D converter 74, fig. 7, col. 6, lines 20-39).*

AS to claim 4, Wang teaches the pointing device of claim 1, further including a Left click button and a Right click button in addition to the selector (a Left click button and a Right click button of the computer mouse 21).

As to claim 5, Wang teaches the pointing device of claim 1, wherein the selector has different physical positions each representing a different one of the first and second states *(the push stick 81 has two different control display states, fig. 8, col. 6, lines 20-39).*

As to claim 6, Wang teaches the pointing device of claim 1, wherein the selector is an angular sensor configured to sense an angle of the pointing device *(the stick*

sensor 81 is pivoted in different four directions associated with different four angles, fig. 8).

As to claim 7, Wang teaches the pointing device of claim 1, wherein in the first navigation mode the navigation control moves at a first sensitivity in accordance with the physical input, and in the second navigation mode the navigation control moves at a second different sensitivity in accordance with the same physical input *(a trackball sensor 211 of the computer mouse 21 moves by a physical arm, and manipulates a movement of a cursor in the monitor, a user pushes the control stick sensor 81 for determining the movement of the cursor on the monitor of a computer 15 whether a first display state or a second display state is selected, col. 4, lines 47-67, and col. 6, lines 18-51).*

As to claim 8, Wang teaches the pointing device of claim 1, wherein the physical input is movement of the pointing device, and wherein in the first navigation mode the navigation control moves by an amount that has a first relationship with the movement of the pointing device, and in the second navigation mode the navigation control moves by an amount that has a second different relationship with the movement of the pointing device *(a trackball sensor 211 of the computer mouse 21 moves by a physical arm, and manipulates a movement of a cursor in the monitor, by a different force exerted, a user pushes the control stick sensor 81 for determining the movement of the cursor on the monitor of a computer 15 whether a first display state or a second display state is selected, col. 4, lines 47-67, and col. 6, lines 18-51).*

As to claim 9, Wang teaches the pointing device of claim 8, wherein the navigation control moves linearly in accordance with the movement of the pointing device in both the first and second navigation modes *(a cursor is moved linearly in x and y directions, col. 4, lines 58-67).*

As to claim 10, Wang teaches the pointing device of claim 1, wherein the pointing device is configured to move upon a surface, the selector being responsive to an amount of pressure applied to the pointing device against the surface *(the mouse 21 is moved on the surface of the mouse pad, and the stick 81 is exerted by an amount of force, col. 6, lines 18-51).*

As to claim 12, Wang teaches the pointing device of claim 1, wherein the pointing device is not integrated with a keyboard having an alphanumeric section *(the computer mouse 12 is stand-alone separated from a keyboard).*

As to claim 13, Wang teaches the pointing device of claim 1, wherein the navigation control is a cursor *(the cursor being displayed on the monitor, col. 4, lines 50-52).*

4. As to **claim 14**, Wang teaches a pointing device configured to communicate with navigation software running on a computer having a display, the pointing device comprising:

a first sensor configured to sense movement of the pointing device with at least two degrees of freedom, the pointing device configured to request the navigation software to move a navigation control on the display in accordance with the movement of the pointing device *(a trackball sensor 211 of the computer mouse 21 moves by a*

physical arm, and navigates/manipulates a movement of a cursor in a graphic interface provided in software application running being displayed on the screen monitor, fig. 2, col. 4, lines 47-67);

a second sensor configured to sense a physical input with at least two degrees of freedom, the pointing device configured to request the navigation software to move the navigation control on the display in accordance with the physical input *(a user pushes the control stick 81 for determining the movement of the cursor on the monitor of a computer 15 whether a first display state or a second display state is selected, col. 6,lines 18-51).*

Claim 15 shares the same limitations as those of claim 2 and therefore the rationale for rejection will be the same.

As to claim 17, Wang teaches the pointing device of claim 14, wherein the first sensor is a trackball sensor 211.

As to claim 18, Wang teaches the pointing device of claim 14, wherein the second sensor is a touch-sensitive surface, the physical input including movement across the surface (a touch panel 122, fig. 12, col. 7, lines 18-51).

As to claim 19, Wang teaches the pointing device of claim 18, wherein the first sensor is a trackball sensor 211.

As to claim 20, Wang teaches the pointing device of claim 14, wherein the second sensor is a joystick (the stick 81).

As to claim 21, Wang teaches the pointing device of claim 20, wherein the first sensor is a trackball sensor 211.

Claim 22 shares the same limitations as those of claim 2 and therefore the rationale for rejection will be the same.

5. As to **claim 27**, Wang teaches an apparatus (a computer mouse 21), comprising:

a body (a housing 20);

a first pointing device configured to control two-dimensional movement of a displayed navigation control in response to movements of the body *(a trackball sensor 211 of the computer mouse 21 moves and navigates a cursor in x and y dimensions with respect to the housing 20, fig. 2, col. 4, lines 47-67)*; and

a second pointing device physically coupled to the body and configured to control two-dimensional movement of the displayed navigation control in response to user input other than movements of the body *(a user pushes the control stick 81 for identifying the movement of the cursor in x and y dimensions with respect to the housing 20, col. 6,lines 18-51).*

As to claim 28, Wang teaches the apparatus of claim 27, wherein the first pointing device is a mouse and the second pointing device is one of a touchpad, joystick, or trackball (a touch panel 122).

As to claim 29, Wang teaches the apparatus of claim 27, wherein the first pointing device controls the displayed navigation control at a first scale and the second pointing device controls the displayed navigation control at a second different scale (*the magnification or reduction changes the picture scale when upward or downward scrolling, col. 4, lines 40-43).*

Claim 31 shares the same limitations as those of claim 12 and therefore the rationale for rejection will be the same.

Claim 32 shares the same limitations as those of claim 13 and therefore the rationale for rejection will be the same.

6. Claims 23-26 is rejected under 35 U.S.C. **102**(b) as being anticipated by Lau (US 6,4,948).

7. As to **claim 23**, Lau teaches a method in a computer, comprising steps of:

controlling movement of a displayed navigation control at a first scale in response to user small-muscle-group movements *(a tracking ball 104 of the computer mouse 100 moves by a physical arm, and navigates/manipulates a movement of a computer display; Thus, the physical arm corresponds to a small-muscle-group movement as claimed, fig. 1B, col. 3, lines 42-49)*; and

controlling movement of the displayed navigation control at a second different scale in response to user large-muscle-group movements *(a touch pad 106 for touching by the finger and applying scaling factors to first and second input with respect to the movement of the cursor on the computer display; Thus, the finger corresponds to a large-muscle-group movement as claimed, col. 3, lines 50-58, and col. 5, line 58 through col. 6, line 9).*

As to claim 24, Lau teaches the method of claim 23, wherein the small-muscle-group movements include movements of the user's arm and the large-muscle-group movements include movements of the user's finger *(the physical arm corresponds to a*

small-muscle-group movement, and the finger corresponds to a large-muscle-group movement as claimed).

As to claim 25, Lau teaches the method of claim 23 wherein the large-muscle-group movements cause a pointing device to translate, but the large-muscle-group movements do not *(the physical arm corresponds to a small-muscle-group movement, but not related to the movement of the finger as corresponding to a large-muscle-group movement as claimed).*

As to claim 26, Lau teaches the method of claim 23, wherein the navigation control is cursor, col. 3, lines 57-58.

8. Claim 33, 35 and 36 are rejected under 35 U.S.C. **102**(b) as being anticipated by Price (US 6,480,184).

9. As to **claim 33**, Price teaches a pointing device configured to communicate with navigation software running on a computer having a display, the pointing device comprising:

a first pointing element configured to control a navigation control on the display using absolute tracking *(a track ball 22a moves and navigates a cursor on a screen as corresponding to the absolute position); and*

a second pointing element configured to control the navigation control using relative tracking *(a level 12 moves and navigates a cursor on the screen as corresponding to the relative position, col. 6, line 57 through col. 7, line 4).*

As to claim 35, Price teaches a kit, comprising: the pointing device of claim 33; and a computer-readable medium storing computer-executable instructions for

performing steps comprising: receiving first data related to user input upon the first pointing element, and controlling the navigation control using absolute tracking in accordance with the first data; and receiving second data related to user input upon the second pointing element, and controlling the navigation control using relative tracking in accordance with the second data *(a software driver has a program instruction storing in a computer-readable medium and executed by the PC, a track ball 22a moves and navigates a cursor on a screen as corresponding to the absolute position; a level 12 moves and navigates a cursor on the screen as corresponding to the relative position, col. 3, lines 45-65 and col. 6, line 57 through col. 7, line 4).*

As to claim 36, Price teaches a pointing device of claim 33, wherein the navigation control is a cursor, col. 4, lines 63-67.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

11. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wang in view of Griffin et al (US 6,842,169) hereinafter Griffin.

Wang teaches all of the claimed limitation of claim 1, except for wherein the selector is a scroll wheel rotatable around a first axis and tilt-able around a second axis, the first and second states being selected by a tilt of the scroll wheel.

However, Griffin teaches a thumbwheel input device oriented on an incline and comprising a wheel such that a first input is generated by rotation of the wheel about its axis, and a holder also having an axis of rotation and a portion thereon to receive the wheel whereby a second input is generated by rotation of the holder about the second axis, abstract.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have combined Griffin into Wang to create the claimed invention. It would have been obvious to modify Wang to have the tilt wheel as taught by Griffin because this would provide auxiliary input device such as multiple input mode thumbwheels (col. 1, lines 8-11 of Griffin).

12. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wang in view of Yin (US 6,784,870).

Wang teaches all of the claimed limitation of claim 14, except for a first sensor is an optical sensor.

However, Yin teaches a computer mouse/joystick device 200 including an optical sensor 222, fig. 5, col. 4, lines 15-20.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have combined Yin into Wang to create the claimed invention. It would have been obvious to modify Wang to have the optical sensor as taught by Yin because this would allow users to conveniently transport both without having to carry separately or load them into a separate carrying case (col. 1,lines 57-59 of Yin).

13. Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over Price in view of Daniels (US 6,927,756).

Price teaches all of the claimed limitation of claim 34, except for wherein the first pointing element includes a light gun, and the display is configured to sense a position of light emitted from the light gun incident on the display

However, Daniels teaches a computer mouse including a laser pointer as corresponding to the light gun as claimed, abstract.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have combined Daniels into Price to create the claimed invention. It would have been obvious to modify Price to have the laser pointer as taught by Daniels because this would apply for using in highlighting points of a presentation (col. 1, lines 35-39 of Daniels).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KEVIN M. NGUYEN whose telephone number is 571-272-7697. The examiner can normally be reached on MON-THU from 8:00-6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, a supervisor RICHARD A. HJERPE can be reached on 571-272-7691. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8000.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the Patent Application Information Retrieval system, see http://portal.uspto.gov/external/portal/pair. Should you have questions on access to the

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KMN
March 16, 2007